

WHAT IS CLAIMED:

1. An apparatus for automatically preparing a frozen confection, comprising:

a housing;

5 a receiving chamber pivotally attached to the housing, the receiving chamber being configured to mix and dispense the frozen confection;

an auger rotatably mounted in the housing to enter the receiving chamber and mix the confection; and

10 an electronic control system for controlling the vertical and rotational motion of the auger.

2. The apparatus of claim 1, wherein the auger is adjustably mounted to the housing.

15 3. The apparatus of claim 1, wherein the electronic control system controls a drive motor that rotates the auger.

4. The apparatus of claim 1, wherein the electronic control system is programmed to operate the drive motor for a predetermined time and speed.

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5. The apparatus of claim 1, further comprising:

a safety control system which inhibits the auger control system if the safety interlock functions are not in a predetermined state.

25 6. An apparatus for preparing a frozen dessert product, comprising:

a housing attached to a mountable base, the base being configured to support the housing;

a receiving chamber pivotally attached to the housing;

an auger rotatably adjustably mounted in the housing, the auger being extensible down towards the receiving chamber by means of a control motor;

an electronic control system for controllably mixing the frozen dessert product; and

5 a plurality of holes in the auger, the holes being configured to project fluid from within the auger outward into the mixing chamber to clean the auger and mixing chamber after use.

7. The apparatus of claim 6, wherein the electronic control system
10 includes a control panel, a safety interlock system, a microprocessor and an auger control system.

8. The apparatus of claim 7, wherein the microprocessor processes
function commands input into the control panel with the safety interlock system
15 commands to initiate the auger control system.

9. The apparatus of claim 7, wherein the auger rotation is inhibited if the safety system interlocks are not verified.

20 10. The apparatus of claim 6, wherein the housing further comprises a moveable safety shield, the safety shield being configured to inhibit operation of the auger when the shield is in an open configuration.

11. The apparatus of claim 6, wherein the electronic control system is
25 programmed to mix the frozen dessert ingredients for a predetermined time.

12. The apparatus of claim 6, wherein the receiving chamber comprises an opening at the upper section of the chamber, the receiving chamber further includes an operable tip that opens to dispense the frozen dessert mixture.

13. A frozen dessert dispensing machine, comprising:
a housing attached to a mountable base, the base being configured to support the housing;

a receiving chamber pivotally attached to the housing;

5 an auger rotatably mounted in the housing, the auger being capable of extending down towards the receiving chamber and being retracted elevated above the receiving chamber; and

a control system for managing control of the frozen dessert machine operating cycle, wherein the control system includes a control panel, a safety
10 interlock system, a microprocessor and an auger control system.

14. The frozen dessert machine of claim 13, wherein the microprocessor processes function commands input into the control panel with the safety interlock system commands to initiate the auger control system.

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15. The frozen dessert machine of claim 13, wherein the auger rotation is inhibited if the safety system interlocks are not verified.

16. The frozen dessert machine of claim 13, wherein the control system
20 controls a drive motor that rotates the auger.

17. The frozen dessert machine of claim 13, wherein the control system controls an AC stepper motor that vertically elevates and lowers the auger.

25 18. The frozen dessert machine of claim 13, wherein the control system is programmed to operate the drive motor for a predetermined time.

19. A method for preparing a frozen dessert product, comprising:
combining frozen dessert ingredients into a conical mixing receptacle, the
30 receptacle being attached to a frozen dessert apparatus;

mixing the ingredients with injected air, the ingredients being mixed with an auger for a predetermined time, the auger being rotatably mounted to the dessert machine, the vertical and rotational movement of said auger being controlled by a microprocessor; and

5 dispensing the frozen dessert from the mixing receptacle through a dispensing outlet into a container.

20. The method of claim 19, wherein the frozen dessert ingredient includes fresh fruit.

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21. The method of claim 19, wherein the frozen dessert ingredient includes frozen fruit.

22. The method of claim 19, wherein the auger is configured to emit a
15 cleaning fluid through and out of the auger.

23. The method of claim 19, wherein the mixing auger is inhibited by a safety interlock system.

20 24. The method of claim 19, wherein the mixing auger is inhibited if the mixing receptacle is not in a secured position.

25. The method of claim 19, wherein the mixing auger is inhibited if the mixing auger is not positioned in the receiving chamber.

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26. The method of claim 19, wherein the mixing auger is inhibited if a safety shield is not installed on the frozen dessert apparatus.